



9. ECOSYSTEM STATUS SUMMARY

9-1 General

This chapter summarizes information regarding Fort Wainwright ecosystems in historic times, emphasizing Army use. Much of the chapter is conjecture due to a lack of background data. Recent inventories, monitoring programs and implementation of a GIS are improving the Army's ability to analyze ecosystem trends.

9-2 Water Quality

The quality of the surface water has remained good since withdrawal of the land for military use. As stated in Section 12-3c, the only place where there is reason to suspect significant effects on water quality is Stuart Creek, and a monitoring program of that watershed is planned. There is no reason to suspect either degradation (beyond localized, tempo-

rary sedimentation) or improvement to most Fort Wainwright surface waters. There has been only limited monitoring of these waters, but a baseline water quality survey is planned (Section 12-2m).

Groundwater is one of Fort Wainwright's most valuable natural resources. With the exception of naturally occurring metals, groundwater quality is good in the Fort Wainwright area.

Army-related industrial activity in the Main Post has caused groundwater pollution, generally associated with underground storage tanks, facilities where chemicals were stored, and places where chemicals were dumped. These areas are being intensively monitored. Pollution is generally localized, and there is no indication of deep groundwater pollution. The recent trend has been toward improvement as Army restoration projects mitigate damage to groundwa-

ter quality. Practices that have led to this contamination have been discontinued; for example, underground storage tanks have been removed. All petroleum, oils, and lubricants are now stored in aboveground tanks surrounded by containment berms.

Water quality reflects environmental pollution, including erosion. Thus, maintenance of high water quality is an important goal of this INRMP. Fort Wainwright has its own drinking and other-use water supply system (Section 4-3). The post has naturally good quality surface and groundwater, and it intends to preserve that quality.

AR 200-1 establishes the following objectives for water resources on Army lands:

- ▶ Conserve all water resources
- ▶ Control or eliminate sources of pollution to surface or groundwaters through conventional or innovative treatment systems
- ▶ Demonstrate leadership in attaining the national goal of zero discharge of water pollutants
- ▶ Provide drinking water that meets applicable standards
- ▶ Cooperate with federal, state, and local regulatory authorities in forming and implementing water pollution control plans
- ▶ Control or eliminate runoff and erosion through sound vegetative and land management practices
- ▶ Consider nonpoint source pollution abatement in all construction, installation operations, and land management plans and activities

Attainment of most of the above objectives is not the responsibility of Army installation natural resources programs, but some of them, especially the first and last two, are clearly natural resources management concerns.

Erosion has not been identified as a significant threat to water quality. The area with the highest potential for erosion is Stuart Creek in YTA. Munitions explosions and associated wildfires cause soil disturbance, which increases the risk of significant erosion.

Groundwater management consists of restoration projects associated with individual sources of pollution, generally associated with the CERCLA “Superfund” designation. These projects are not classified as natural resources management and are not included within this INRMP.

9-3 Soil Productivity

Army activity has had its greatest impacts on soil productivity in the Cantonment Area due to construction. Soils in other areas have been impacted by military activities, localized around small arms ranges, roads, and other facilities. Stuart Creek (discussed in Section 12-3c(1)) may be experiencing more significant erosion due to explosions and burning. However, Fort Wainwright soils have been relatively unaffected by military training. This is fortunate, because permafrost is significantly affected by soil disturbance, and when changes to the permafrost occur, other ecosystem functions also can change.

9-4 Biodiversity

Most of the land was relatively undisturbed when it was withdrawn for military use. Because there are little or no data on most species prior to the last 10 years or so, it is unknown whether the military presence has significantly affected biodiversity on Fort Wainwright. Changes in ecosystems have been localized and may have affected species abundance for short periods, but probably did not affect overall species richness.

There is no evidence that Army use has significantly affected any plant or animal species beyond specific locations of construction or military activity. Greatest losses of habitat are associated with the Cantonment Area due to construction and associated urban development and use. A major species, now essentially gone from the Fort Wainwright landscape, is the caribou. The decline of the Fortymile caribou herd, which once ranged over what is now Fort Wainwright, is unrelated to military training (see Section 8-2a(3)).

Effects of noise on wildlife from military activities at Fort Wainwright are unknown. Military activity does negatively affect individual animals and could

affect populations. No studies have been conducted on Fort Wainwright to measure military activity disturbance on specific species. Habitat Management Plans completed as part of this INRMP will identify sensitive wildlife habitats and implement management to protect these areas.

9-5 Support of the Military Mission

Fort Wainwright is fully capable of supporting its military mission. The military mission is natural resources dependent, and it affects some of these resources. The LRAM program mitigates some damage caused by this mission, and other ITAM programs within this INRMP will reduce future damage.

There is no evidence to suggest that the military mission is jeopardized on Fort Wainwright due to the capability of the land to support that mission. In fact, the land could support additional training as has been proven in the past when training levels were higher.

9-6 Forest Ecosystem

The total forested land area on Fort Wainwright is 374,678 acres (Tanana Chiefs Conference, 1993). Of this, only Birch Hill is currently available for cutting fuelwood and Christmas trees (or any commercial harvest by the Army).

Commercial forestry has never been significant on Fort Wainwright, either before or after Army occupation. The capability of Fort Wainwright to support commercial forestry is increasing due to maturation of the forest in many areas. The installation can meet the demand for fuelwood and Christmas trees, but because it can only be taken from the Cantonment Area, there are projected shortages in fuelwood.

9-7 Agriculture

Fort Wainwright cannot support agriculture. Poor soils, high water tables, steep slopes, a short growing season, and incompatibility with the military mission preclude the use of any Fort Wainwright land for agriculture.

9-8 Outdoor Recreation

9-8a Hunting, Trapping, and Fishing

Little is known regarding the status of game species in this area prior to the 1940s. Likewise, little information is available on the quality of hunting, fishing, or trapping prior to establishment of Fort Wainwright. Fort Wainwright is recognized for its high quality moose hunting opportunities. Another game species especially hunted on the post is grouse. Fort Wainwright also supports a popular fishing program. Fishing opportunities have increased, largely due to fish stocking by ADF&G.

There is some concern regarding the sustainability of black bear harvest on YTA (see Section 14-3b(2)). Military activities that disturb vegetation, such as burning Stuart Creek Impact Area, benefit species that depend on early-successional habitats, such as moose. The decline of the Fortymile caribou herd is a significant loss, but this decline was not related to military activities.

Fishing, hunting, and trapping are important outdoor recreation activities at Fort Wainwright. The popularity of these sports can be attributed to quality game management and efficient administrative procedures that allow easy access for users. Hunting and trapping are important to both military and civilians in the area. Angling on Fort Wainwright seems to be more important to the military community, perhaps reflecting the greater knowledge of alternative fishing sites by the public.

Data on permits issued are kept by Military Police wardens and compiled by personnel at natural resources offices at both Fort Wainwright and Eielson AFB. The combined number of permits issued annually decreased in the early 1990s (1991 - 3,090, 1992 - 2,331, 1993 - 2,309, 1994 - 2,154, 1995 - 2,291, 1996 - 2,501, and 1997 - 2,470), probably reflecting cuts in the number of military personnel on the two installations. Trapping has shown minor increases (1991-92: 18, 1992-93: 16, 1993-94: 20, and 1994-95: 22).

Trapper use of Fort Wainwright has been consistent (16-22 trappers). Certain species can be selected by the type of set and trap. Therefore, harvest may not

be indicative of population status, but rather indicative of the success of serious trappers who are selecting for certain species. Regardless of trends, martens are the most important furbearer on Fort Wainwright from a total catch perspective. Fox, weasels, and lynx are next in importance with other furbearers being relatively unimportant in terms of total catch.

Chena River is a popular fishing location where grayling, burbot, and northern pike are available year-round, and salmon is a migratory species. There are also fishing opportunities in the Tanana and Wood rivers and some streams, lakes, and ponds. Hunting primarily occurs in YTA and TFTA, but there are also hunting opportunities at Birch Hill and on Eielson AFB. Trapping is done in TFTA and YTA. Appendix 9-8a indicates hunting and trapping harvest. Fishing harvest is not tabulated.

ADF&G publishes pamphlets, regulations, and information sheets to assist hunters, anglers, and trappers in the state. Especially pertinent to military personnel are *Hunting on Military Land*, Hunter Information Series #111-6 and *Military Hunters Off Military Land*, Hunter Information Series #111-7.

Air taxi services frequently land planes on Fort Wainwright to use the post for hunting, fishing, and related activities. An example of this is at Blair Lakes, which is largely inaccessible by ground travel. Public flight service personnel, guides, and outfitters must register as a business with the Director of Personnel and Community Activities, and the Fish and Wildlife Office on post, and may need to be permitted by the BLM under Special Recreation Use Permit guidelines before they are authorized to operate within military boundaries. There are no problems with accommodating such requests provided they are coordinated with military training activities.

9-8b Other Natural Resources Oriented Outdoor Recreation

Fort Wainwright has a plethora of natural resources-related recreational activities other than hunting, trapping, and fishing. These range from more passive activities, such as wildlife watching, to very active recreational outlets, such as hiking, boating,

camping, and ORV use. Activities are summarized in *Outdoor Recreation, Fort Wainwright, Alaska* (Anonymous, undated).

9-8b(1) Outdoor Recreation Center

The Fort Wainwright Outdoor Recreation Center provides equipment, information, and programs to encourage and enhance the recreational use of Alaska's natural resources by the Fort Wainwright community. The center provides:

- ▶ Rental equipment for boating, canoeing, rafting, fishing, camping, backpacking, bicycling, and yard work
- ▶ Information on boating safety, trails and waterways, campsites, parks, outdoor activities, equipment, flora, fauna, and outdoor skills
- ▶ Topographic maps and reference books on Alaska natural resources
- ▶ Boating and canoeing safety classes
- ▶ Specialized outdoor clinics
- ▶ Plan trips and find others to share experiences and expenses
- ▶ Advertise the sale and purchase of outdoor recreation equipment
- ▶ Reservations made for group use of Glass and Engineer parks

9-8b(2) Hiking and Backpacking

Berry picking, birdwatching, nature study, and a chance to see moose and a variety of small animals are popular activities in the following areas:

- ▶ Pathways along the Chena River and scattered through the woods in Glass Park
- ▶ Off-road vehicle trails in the woods in Engineer Park
- ▶ Fifteen miles of borough trails, accessible from the tower at the end of Ski Road

There are some excellent trails within easy driving distance of Fort Wainwright. These include the Gran-

ite Tors Trail, an eight-mile trail about 40 miles along Chena Hot Springs Road; White Mountain Summer Trail, a 23-mile trail that begins at Mile 27 on Elliott Highway; and Pinnell Mountain National Recreation Trail, a 24-mile trail from Twelvemile Summit to Eagle Summit on Steese Highway.

9-8b(3) Boating, Canoeing, and Rafting

The Chena River is a popular canoeing or rafting trip that requires about two hours from the canoe landing to the boat ramp on Fort Wainwright. USARAK plans to develop its boat launch area on the Chena River during the next five years. The launch is already there, but it is lacking in aesthetic quality and has limited use. Picnic facilities will be added to create a day-use area; toilet facilities will be provided; and an information kiosk will be constructed to inform anglers and boaters of opportunities, hazards, and requirements for their sports.

Boats with jet engines may be rented from the Outdoor Recreation Center. The Tanana Flats offer the best boating opportunities with access from Tanana and Wood rivers into Clear Creek and the rest of the Tanana Flats. Other boating rivers and streams in the area include the Chatanika, Nenana, Salcha, Tolovana, and Goodpasture rivers and Birch Creek. Popular area lakes include Birch, Harding, Little Harding, Quartz, Lost, Summit, and Paxson.

9-8b(4) Parks

Fort Wainwright's Glass and Engineer parks are available for use by the local community. Parks have picnic tables, fire rings, trash barrels, latrines, and trails. Overnight camping is permitted in Glass Park. Reservations are made for group use through the Outdoor Recreation Center. The Fort Wainwright community also has access to Birch Lake Recreation Area, 58 miles east of the post along Richardson Highway. This Air Force facility has cabins, picnic and camping facilities, a boat dock, equipment rental center, lodge, and swimming beach. Further away at Seward, Alaska, is the Seward Recreation Camp that offers cabins, a lodge with dining facilities, marina, equipment rental, an exchange

facility, a trailer camping area, and related services.

There are numerous recreation areas not associated with the military in the vicinity of Fort Wainwright.

- ▶ Chena River State Recreation Area in Chena Valley
- ▶ Chatanika River Wayside, campsites and boat launch 39 miles north on Steese Highway
- ▶ Chena River Wayside, picnicking and boating 39 miles east on Richardson Highway
- ▶ Salcha River Picnic Wayside, picnicking and boating 40 miles east on Richardson Highway
- ▶ Harding Lake State Recreation Area, a highly developed park about 42 miles east of Richardson Highway and two miles north
- ▶ Quartz Lake Wayside, fishing, swimming, and boating 85 miles east on Richardson Highway and 3 miles north
- ▶ Clearwater State Campground, boating and camping 95 miles east on Richardson Highway
- ▶ Donnelly Creek State Campground, 28 miles south of Delta Junction
- ▶ Denali National Park and Preserve, full National Park facilities 120 miles south of Fairbanks
- ▶ Denali State Park, wilderness park and camping 190 miles south of Fairbanks

9-8b(5) Other Recreational Activities

Fort Wainwright has other recreational opportunities for members of the military and civilian communities. The post offers berry picking (cranberries, strawberries, raspberries, and blueberries), downhill and cross-country skiing, mountain biking, skeet/trap shooting, archery shooting, and similar activities (Anonymous, undated). The installation recently installed two wildlife viewing platforms and interpretative panels overlooking the Chena River. Bike paths have also been added in recent years. Fort Wainwright is an excellent duty station for soldiers and their families who enjoy outdoor recreation.

